Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application and annexed to the International Preliminary Examination Report:

1.(currently amended)   A device for processing ~~(30)~~ information in a database ~~(5)~~, comprising:

- means for the ~~automatic~~ selection ~~(31)~~ of data of the database (5) according to selection criteria,

- and means for ~~automatically~~ arranging ~~(32)~~ ~~said~~the selected data in a representation space ~~(40)~~ provided for the attention of at least one user, ~~said~~the space ~~(40)~~ comprising a plurality of positions which can receive elements that are representative of the data,

~~characterized in that~~ wherein it comprises:

means for pre-defining ~~(33)~~ at least one related representation area ~~(A, A')~~ within ~~said~~the representation space ~~(40)~~, formed by activated positions, ~~said the~~ ~~representation space including at least one complementary area (CA) having no data~~ ~~representation, formed by deactivated positions,~~

means for specifying ~~(34)~~ at least one data bootstrapping element for each of ~~said~~the related areas ~~(A, A')~~,

means for positioning ~~(35)~~ ~~said~~the bootstrapping element at a bootstrapping position ~~(P, P')~~ in ~~said~~the related area ~~(A, A')~~ corresponding to ~~said~~the element,

means for ~~automatically and~~ successively determining ~~(36)~~ new data elements from at least a ~~the~~ data element[~~s~~] already positioned in ~~said~~the related area ~~(A, A')~~, in accordance with at least one proximity order relation based on contents of ~~said~~the data,

and means for automatically and successively positioning ~~(37)~~ ~~said~~of at least a part of the new data elements in ~~said~~the related area ~~(A, A')~~, at positions neighboring the positions occupied by the data elements already positioned, if these positions not be already occupied by elements already positioned.

said selection means ~~(31)~~ including the initial specification ~~(34)~~ and successive determination ~~(36)~~ means, and ~~said~~the arrangement means ~~(32)~~ including the predefinition ~~(33)~~, bootstrapping element positioning ~~(35)~~ and successive positioning ~~(37)~~ means.

2.   (currently amended)   The information processing device ~~(30)~~ as claimed in claim 1, ~~characterized in that~~ <u>wherein</u> ~~said~~<u>the</u> successive determination ~~(36)~~ and successive positioning ~~(37)~~ means are provided to form neighborhood cards ~~(NEIGH2)~~ centered on ~~said~~<u>the</u> elements already positioned, each of ~~said~~<u>the</u> neighborhood cards ~~(NEIGH2)~~ centered on one of ~~said~~<u>the</u> elements ~~(Fi)~~ already positioned giving elements neighboring ~~said~~<u>the</u> element in accordance with ~~said~~<u>the</u> proximity order relation, and to select ~~said~~<u>the</u> new elements from ~~said~~<u>the</u> neighboring elements and to place them in ~~said~~<u>the</u> related area ~~(A2)~~ corresponding to ~~said~~<u>the</u> element ~~(Fi)~~ already positioned at positions neighboring ~~said~~<u>the</u> element.

3.   (currently amended)   The information processing device ~~(30)~~ as claimed in claim 2, ~~characterized in that~~ <u>wherein</u> ~~said~~<u>the</u> successive determination ~~(36)~~ and successive positioning ~~(37)~~ means are provided to place ~~said~~<u>the</u> neighboring elements at positions relative to ~~said~~<u>the</u> element ~~(Fi)~~ in ~~said~~<u>the</u> related area ~~(A2)~~, which correspond to the positions relative to ~~said~~<u>the</u> element ~~(Fi)~~ of ~~said~~<u>the</u> neighboring elements in ~~said~~<u>the</u> neighborhood card ~~(NEIGH2)~~.

4.   (currently amended)   The information processing device ~~(30)~~ as claimed in claim[~~s~~] 2 ~~or 3~~, ~~characterized in that~~ <u>wherein</u> ~~said~~<u>the</u> successive determination ~~(36)~~ and successive positioning ~~(37)~~ means are provided to supply ~~said~~<u>the</u> neighborhood cards ~~(NEIGH)~~ to representation means ~~(11)~~ for the attention of ~~said~~<u>the</u> user.

5.   (currently amended)   The information processing device ~~(30)~~ as claimed in <u>claim 1</u>~~any one of the preceding claims~~, ~~characterized in that~~ <u>wherein</u> ~~said~~<u>the</u> successive determination means ~~(36)~~ are provided to exclude from the new data elements, ~~said~~<u>the</u> data elements already positioned, so as to represent, at the most once, each of ~~said~~<u>the</u> data elements in ~~said~~<u>the</u> representation space ~~(40)~~.

6.   (currently amended)   The information processing device ~~(30)~~ as claimed in <u>claim 1</u>~~any one of the preceding claims, characterized in that~~ <u>wherein</u> ~~said~~<u>the</u> successive determination ~~(36)~~ and successive positioning ~~(37)~~ means are provided to determine and position ~~said~~<u>the</u> new elements as and when there are selections by ~~said~~<u>the</u> user, in ~~said~~<u>the</u> representation space ~~(40)~~, of positions neighboring ~~said~~<u>the</u> positions occupied by the data elements already positioned.

7.   (currently amended)   The information processing device ~~(30)~~ as claimed in <u>claim 1</u>~~any one of the preceding claims, characterized in that~~ <u>wherein</u> ~~said~~<u>the</u> successive determination means ~~(36)~~ are intended to use, for the proximity order relation, at least one of the relations based on: a number of identical terms in ~~said~~<u>the</u> contents, a number of similar terms for a predefined part of ~~said~~<u>the</u> contents, a difference in dates in ~~said~~<u>the</u> contents, a number of similar graphic patterns in ~~said~~<u>the</u> contents, and a number of similar sound patterns in ~~said~~<u>the</u> contents.

8.   (currently amended)   The information processing device ~~(30)~~ as claimed in <u>claim 1</u>~~any one of the preceding claims, characterized in that~~ <u>wherein</u> ~~said~~<u>the</u> initial specification means ~~(34)~~ are provided to specify ~~said~~ bootstrapping element according to a user profile.

9.   (currently amended) The information processing device ~~(30)~~ as claimed in <u>claim 1</u>~~any one of the preceding claims, characterized in that~~ <u>wherein</u> the means for pre-defining ~~(33)~~ ~~said~~<u>the</u> related area ~~(A, A')~~ are provided to allow ~~said~~<u>a</u> user to construct ~~said~~<u>the</u> related area.

10.   (currently amended) The information processing device ~~(30)~~ as claimed in <u>claim 1</u>~~any one of the preceding claims, characterized in that~~ <u>wherein</u> the initial specification means ~~(34)~~ are provided, in case of definition of several related areas ~~(A, A')~~ by the predefinition means ~~(33)~~, to specify a first data bootstrapping element in one of ~~said~~<u>the</u> related areas, then to specify the other bootstrapping elements from the first bootstrapping element by means of ~~said~~<u>the</u> proximity order relation.

11. (currently amended) An audiovisual apparatus (MAST, SLAV), characterized in that wherein it comprises a processing device (30) in accordance with the any one of claim[s] 1[-10], saidthe apparatus being preferentially chosen from a television set, a personal digital assistant and a personal computer.

12. (currently amended) A method for processing information in a database (5), comprising the following steps:

- automatic selection of data from the database (5) according to selection criteria,

- and automatic arrangement of saidthe selected data, in a representation space (40) provided for the attention of at least one user, saidthe space (40) comprising a plurality of positions that can receive elements that are representative of the data,

characterized in that wherein it comprises the steps of:

- pre-defining at least one representation related area (A, A') within saidthe representation space (40), formed by activated positions, saidthe representation space comprising at least one complementary area (CA) at saidthe related area without data representation, formed by deactivated positions,

- specifying at least one data bootstrapping element for each of saidthe related areas (A, A'),

– positioning saidthe bootstrapping element at a bootstrapping position (P, P') in saidthe related area (A, A') corresponding to saidthe element,

– automatically and successively determining new data elements from at least a data element[s] already positioned in saidthe related area (A, A'), in accordance with at least one proximity order relation based on contents of saidthe data,

– and automatically and successively positioning saidof at least a part of new data elements in saidthe related area (A, A') at positions neighboring the positions occupied by the data elements already positioned, if these positions not be already occupied by elements already positioned,

said selection step including the initial specification and successive determination steps, and ~~said~~the arrangement step including the predefinition, bootstrapping element positioning and successive positioning steps ~~, said information processing method being preferentially implemented by means of an information processing device (30) in accordance with any one of claims 1-10~~.

13.   (currently amended) A computer program product, ~~characterized in that~~ wherein it comprises program code instructions for the execution of the steps of the method as claimed in claim 12 when ~~said~~the program is executed on a computer.